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Discussion of K. Maskus & K. Saggi (2014) "International Technology Transfer: Analysis from the Perspective of Developing Countries"

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#### Innovation: Global Distribution

#### Patent Priority Filings

	1995	2009
Developed Countries	85.9%	67.4%
Developing Countries	14.0%	32.5%
Least Developed Countries	<0.1%	<0.1%
Developing Countries*	2.4%	1.6%

\*Excluding China, South Korea, and Taiwan. Classification based on U.N.

Source: W. Park (2014), "Intellectual Property Rights and Economic Policy: 2000 – present," in Robert Wright and Tom Zeiler (eds.), *Guide to U.S. Economic Policy*, Chapter 25, New York: Sage Publications. Figures based on EPO *Patstat*.

### Technology Transfer: Global Distribution\*

	Trade		FDI		Licensing	
<u>Year</u>	<u>1995</u>	<u>2010</u>	1995	2010	<u>2000</u>	2010
Developed Countries	71.7%	59.4%	83.7%	75.8%	87.1%	81.0%
Developing Countries	27.7%	39.5%	16.0%	23.8%	12.9%	19.0%
Least Developed Countries	0.6%	1.1%	0.3%	0.4%	<0.1%	<0.1%
Developing Countries**	20.9%	25.7%	13.3%	20.2%	8.6%	11.8%

Source: W. Park (2014), "Intellectual Property Rights and Economic Policy: 2000 – present," in Robert Wright and Tom Zeiler (eds.), *Guide to U.S. Economic Policy*, Chapter 25, New York: Sage Publications. Figures based on UNCTAD Stat.

<sup>\*</sup>Volumes measured in terms of sums of Export-Import Flows or Outward-Inward Stocks.

<sup>\*\*</sup> Excluding China, South Korea, and Taiwan

## Highlights

- Role of IPR mixed and benefits concentrated
- Structural impediments to inward TT for low-income countries
- Channels of Inward TT
  - Traditional: FDI, Trade, Licensing, Joint Ventures
  - Thinking broader: Open innovation, Global Innovation Networks (GIN), and Migration
- ▶ Goals: Access to Knowledge (A2K) and Capacity-Building
- Make inward TT incentive-compatible (cf. China's indigenous innovation policy)
- ▶ IPR should be tailored to developing country needs

## Policy Actions: Further Elaboration

#### Global Innovation Networks (GIN)

- Narrow definition: R&D Affiliates of MNCs
- Broader: startups, academia, public research labs, SSO, gov't agencies
- Challenges: participation from low-income; reduce barriers (regulatory and technical); meet R&D needs in low-income areas, such as in essential medicines, environment, ICT infrastructure, education, energy, agriculture, ...

#### Access to Basic Science & Technology (ABST)

- ► Support GINs facilitate international diffusion of S&T resources (researchers, funds, databases, publications, ...)
- Create common pools e.g. knowledge, 'know-how' available for licensing – and norms for distribution

## Complementary Developments

- GIN & ABST can latch on to:
  - 'User Rights' Research
    - ▶ Flexibilities, limitations & exceptions
    - Adaptations, Investments and Industries based thereon
  - ▶ Creative Commons (CC) vs. ©
    - Yield/waive IPRs
    - Public licensing model (Attribution/Commercial/Derivative/Sharing)
  - Open Educational Resources (OER)
    - Address structural factors (human K development, absorptive capacities)
    - Open licensing model (allows free use & repurposing of works)